CLAIMS

1. A process for producing a metal oxide particle comprising a core part and a surface layer differing in the composition, the process comprising:

providing a sol containing at least a population of first colloid particles and a population of second colloid particles differing in the isoelectric point with each other,

adjusting the pH of said sol to be closer to the isoelectric point of said population of first colloid particles than to the isoelectric point of said population of second colloid particles, thereby aggregating said population of first colloid particles,

adjusting the pH of said sol to be closer to the isoelectric point of said population of second colloid particles than to the isoelectric point of said population of first colloid particles, thereby aggregating said population of second colloid particles onto said population of first colloid particles aggregated, and

drying and firing the obtained aggregate.

2. The process according to claim 1, wherein the pH of said sol is changed to pass the isoelectric point of said population of first colloid particles, thereby aggregating said population of first colloid particles.

3. The process according to claim 1 or 2, wherein the pH of said sol is changed to pass the isoelectric point of said population of second colloid particles, thereby aggregating said population of second colloid particles.

4. The process according to any one of claims 1 to 3, wherein said population of first colloid particles and said population of second colloid particles each is

independently selected from the group consisting of alumina, ceria, zirconia and titania colloid particles.

5. The process according to claim 4, wherein said population of first colloid particles is zirconia, alumina or titania, and said population of second colloid particles is ceria.

6(Amended). An exhaust gas purifying catalyst for internal combustion engine, comprising a particulate support and a noble metal supported thereon,

wherein the particulate support comprises a core part and a surface layer, the molar fraction of the zirconium constituting the zirconia in the core part being higher than the molar fraction of the zirconium constituting the zirconia in the surface layer, and the molar fraction of the cerium constituting the ceria in the surface layer being higher than the molar fraction of the cerium constituting the ceria in the core part;

wherein said core part and said surface layer each comprises a plurality of primary particles;

wherein the composition of the boundary between said core part and said surface layer is gradually changing; and

wherein the content of ceria in the particulate support being 40 to 65 mol% or less.

7. The exhaust gas purifying catalyst for internal combustion engine according to claim 6, wherein the content of CeO_2 in the particulate support is 45 to 55 mol%.

8. The exhaust gas purifying catalyst for internal combustion engine according to claim 6 or 7, wherein the surface layer comprises at least one element selected from the group consisting of alkaline earth metals and rare earths.

9. The exhaust gas purifying catalyst for internal combustion engine according to claim 8, wherein the element comprised in the surface layer is at least one element of Y and Nd.

10. The exhaust gas purifying catalyst for internal combustion engine according to claim 6 or 7, wherein the core part comprises at least one element selected from the group consisting of alkaline earth metals and rare earths.

11. The exhaust gas purifying catalyst for internal combustion engine according to claim 10, wherein the element comprised in the core part is Y.